

ENG-633

Supervising Students in Projects

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Cursus	Sem.	Type
EDOC General and external courses		Obl.

Language of teaching	English
Credits	1
Session	
Exam	Oral
Workload	30h
Hours	16
Courses	8
TP	8
Number of positions	

Frequency

Every year

Remark

Registration via IS-Academia

Summary

In this hands-on course, participants will develop evidence-informed skills relevant to supervising and evaluating students working on projects and labs that are characteristic of science and engineering.

Content

Practical work is an important component of the scientific and engineering curriculum, most commonly in the form of practical sessions in laboratories and projects. International research recognizes the value of practical learning for helping students to develop a wide range of important skills including inquiry and design skills as well as transversal skills such as working in teams and managing projects. In engineering and sciences programmes, there is an increasing use of projects and labs to enable students to develop both technical and professional skills through complex practical tasks, frequently done in teams.

When supervising practical learning activities, teachers and teaching assistants face numerous challenges such as:

- finding the right balance between guiding students through the steps of an experiment or a project and giving them sufficient autonomy so that they develop into independent scientists or engineers
- supporting students when having to work with incomplete data or to cope with uncertainty in real-life projects
- assessing student work based on reports or presentations while taking into account both individual and group contributions
- helping students to acquire the skills to perform in teams when under pressure and having to meet deadlines

In addition, there is evidence that learning happens from undergoing practical work only if students are driven to reflect and step back from the task to think explicitly about the process. Efficiently supervising "learning-by-doing" activities in science and engineering therefore requires specific teaching skills applicable both to one-to-one interactions and to coaching teams.

Using evidence from research in learning sciences, this course will introduce participants to teaching techniques that address these challenges and specifically apply to project and lab situations. Participants will get opportunities to practice these techniques on case studies and get feedback on their teaching skills.

This course will include:

- Interactive lectures on research-informed strategies for supporting and assessing students in "learning-by-doing"

activities (8 h)

- Preparatory reading of research evidence with online comprehension quiz (4h independent work)
- Intensive opportunities for students to practice supervision skills and to receive feedback through skill labs (8 h)
- Case study based application exercises (5 h independent work)

Schedule:

- 24th November + 1st December, 2017, 9-17h : interactive lectures and skills labs

- 14th / 18th December, 2017 : oral exam on case studies

Note

Participants should anticipate spending 9 h for independent study in addition to scheduled class time.

Assessment methods

- Preparatory and homework assignments: 40%

- Oral exam: 60%